

U. S. DEPARTMENT OF ENERGY
ROCKY FLATS PLANT
ENVIRONMENTAL RESTORATION PROGRAM WEEKLY REPORT
WEEK ENDING SEPTEMBER 4, 1992

Section I - Interagency Agreement

OU 1 - 881 Hillside

Phase III RFI/RI Field Activities -- Work continues on the OU 1 Phase III RFI/RI Report. Nearly 100 percent of the laboratory data has been received. EPA and CDH input on data handling and uncertainty analysis for the exposures assessment was obtained at a human health risk assessment (HHRA) working group meeting held on August 28, 1992.

IRA Operations -- Effluent Tank 205 is 100 percent full of treated water from the french drain. Discharge of the tank will occur as soon as the pH level is raised slightly by recirculating the tank through the ion exchange unit.

Effluent Tank 206 has been temporarily taken out of service. Laboratory results show higher levels of iron in Tank 206 than is in the groundwater being treated. The tank is being inspected to determine if there are any problems.

The Ultra Violet/Hydrogen Peroxide Unit is shutdown due to the failure of two of the UV lamp ballasts. A maintenance/repair contract with the manufacturer of the system is being developed.

A nylon terminal strip located within the Ion Exchange's instrumentation panel is overheating due to a design flaw by the manufacturer. The manufacturer is being requested to repair the flaw and any other problems it may have caused.

Optimization testing on the OU 1 IM/IRA treatment system was completed with the exception of some additional air sampling and testing under normal operating conditions. Work on the test report has begun which will include results of both the Systems Operation (SO) test and the Optimization test.

Rust was found in Tank 206 (effluent) causing a reddish discoloration in water. Testing by the 881 Lab determined the cause to be iron in some form. The empty tank was inspected by operators and the inner lining was found to be sloughing off. EG&G will contact the contractor who performed the lining installation to find out who is at fault and to determine what can be done.

Effluent Tank 205 is full; may discharge next week if discharge parameters can be met (pH, solids, etc.). This tank liner will also be inspected when the tank is empty. Tank 207 is slightly over half full, so they must move quickly on the lining problems before they run out of storage capacity.

Complaints about water backing up are still coming from Building 881. About a year ago, a TV camera was placed down the 10" drain line as far as it could go and a blockage was discovered in the line. 881 building maintenance seems to believe that EM is responsible for fixing the line. There was some discussion at the meeting of why they would be responsible, since the blockage was discovered before work on the french drain even began. EG&G is investigating. Clearly, the hydraulic capacity of the line is compromised, which may be what is causing the back up into the 881 Building.

DOE has directed EG&G to make the collection systems as defined in the IM/IRA. Currently, the collection well and the 881 Building footing drain are dumped into the french drain instead of going directly to the 891 treatment building. The IM/IRA indicated water from each source would be sent directly to the treatment building.

Feasibility Study/Treatability Study -- Work continues on the OU 1 Corrective Measures Study/Feasibility Study (CMS/FS) Report. A very preliminary listing of candidate remediation technology process options has been developed.

The 881 Hillside Feasibility/Treatability Study borehole sample drilling program is complete. A total of two sites were drilled and sampled. The borehole sample drilling program began on August 21 in IHSS 119.1 and was completed by September 4, 1992. All samples obtained were submitted to the treatability laboratory for testing. The information developed from the treatability testing will be used to evaluate remedial action alternatives in the OU 1 Feasibility Study.

All comments on the Final Treatability Study Work Plan are being incorporated into the work plan before submittal to the regulatory agencies during the week of September 7, 1992.

OU 2 - 903 Pad, Mound, East Trenches Area

Phase II RFI/RI Alluvial Field Activities -- A Draft Technical Memorandum, Surficial Soil Sampling Plan was received by RFO on September 3. RFO comments will be incorporated into the document and submitted to the regulatory agencies for review and comment during the week of September 7, 1992.

Phase II RI Report (Alluvial) and HHRA -- A seven-month extension for delivery of the Phase II RFI/RI Report, which is due to the regulatory agencies on March 12, 1993, is under consideration by RFO. The extension is necessary due to the extended laboratory turnaround time being experienced.

The Draft Final of the Technical Memorandum No. 5, Exposure Scenarios, was submitted to the regulatory agencies this week.

The first draft of Technical Memorandum No. 6, Modeling, was recently completed. The document is undergoing internal review and comment.

Feasibility Study (FS) -- The Statement of Work for the FS is complete and is now in the procurement cycle. It is anticipated that the contract will be awarded under the new Master Task Agreement (MTA) subcontractor procurement system.

Subsurface Contamination IRAP -- The Final Subsurface IM/IRAP is tentatively scheduled to be released to the public on September 10, 1992; EPA and CDH approved the final IM/IRAP and Responsiveness Summary September 1, 1992. RFO has not received HQ final approval to release this document to the public September 10, 1992.

Budgetary constraints have forced a reduction in effort for FY93. There will be sufficient funding to complete the design and characterization work for the first test site and procurement of the vapor extraction treatment unit. Implementation of the project will likely be pushed into FY94 as will the work on the remaining test sites. The FY93 budget will determine what work can be scheduled in FY93.

The 60% design meeting was held on August 20, 1992, to review the design and test plan to be incorporated into the first of three test plans. The basic design layout was given preliminary approval. One issue that arose at this meeting and at a previous meeting is whether the extraction well design would require licensing fees. A position letter on the subject is being prepared.

OU 3 - Offsite Releases --Surface soil sampling was discontinued for five weeks to allow time to obtain the necessary Use Agreements from private land owners. The slow pace of obtaining agreements could not keep the sampling crew sufficiently active.

Sediment sampling, assisted by USGS, was completed in Great Western Reservoir. The sampling crew will begin Standley Reservoir sampling on September 3, 1992, weather permitting. A field tour with the wind tunnel subcontractor was conducted to view the sampling sites and discuss the study.

A meeting was held with ER staff to discuss EPA's demand to draw a line somewhere in OU 3 that determines where construction activities may or may not occur. EPA wants this boundary enforced by DOE until completion of the RFI/RI activities. The OU 3 RI Report is expected to find minimal risk; RFO/EG&G is looking at contouring OU-2 & 3 soils data and deriving a 1×10^{-6} risk contour. This contour will likely extend a small distance east of Indiana Street and into the Remedy Acreage.

OU 4 - Solar Ponds --The Implementation Plan and Health and Safety Plan for the OU 4 work plan are nearly complete. The Implementation Plan includes a baseline schedule for the RFI/RI field work and will also include organizational charts and a project contact list. The Health and Safety Plan is also nearly complete.

A site tour of the OU 4 area for the RI subcontractor was held on August 31, 1992. The purpose of the tour was to familiarize the subcontractor with the OU 4 area, and to observe the activities associated with the pondcrete operations.

Radiation Protection Technical training was held on September 3, 1992. The training consisted of a four-hour course on Radiation Protection and Instrumentation used at Rocky Flats. Additional training courses for the subcontractor are being scheduled. Training will include Health and Safety, Standard Operating Procedures, and General Employee Training for subcontractors.

OU 5 - Woman Creek -- The OU5 Health and Safety Plan (HSP) is in the final stages of approval. A standard operating procedure (SOP) training class was held on September 4, 1992, for the subcontractors.

RFO, EPA and CDH have copies of the SOPs for the High Purity Germanium Survey (HPG). The HPG survey crew began training in the field on September 4, 1992 with the actual survey work to begin on September 8, 1992. Work will begin without an approved SOP, but will tie in with a previous survey over the old landfill. The regulators have been notified.

Technical Memoranda No.2 (TM 2), Surface Geophysics, has been delivered to the regulatory agencies. The baseline survey needed for the geophysical surveys is scheduled for September 18, 1992, and pending approval of TM 2. The geophysical surveys will begin at the Old Landfill (IHSS 115) a day or two later.

OU 6 - Walnut Creek -- The OU 6 Health and Safety Plan (HSP) is almost complete. The HSP must be approved before field work can commence. A draft of the TM

outlining reductions in the OU 6 Work Plan was received by RFO. The environmental evaluation request for proposal was submitted to a subcontractor. A proposal is expected within one week.

OU 7 - Present Landfill -- Subcontract negotiations for implementation of the OU 7 RFI/RI Work Plan took place August 31, 1992. Contract award is anticipated by September 8, 1992.

OU 8 - 700 Area -- CDH and EPA are reviewing the Draft Phase I RFI/RI Work Plan submitted on June 22, 1992. CDH and EPA were scheduled to submit comments on July 30, 1992. CDH stated that they are about 3 weeks behind schedule for delivery of formal written comments. The proposed extended delivery date is November 13, 1992 based on a revised schedule that assumed agency comments would be received by September 11, 1992.

OU 9 - Original Process Waste Lines -- Work is continuing on obtaining a subcontract for implementation of the Phase I RFI/RI Work Plan for OU 9. OU 9 field work is expected to begin during January 1993 after a Health and Safety Plan, TM #1 and Implementation Plan have been submitted to and approved by the appropriate parties.

OU 10 - Other Outside Closures -- The OU 10 Phase I RFI/RI Work Plan was approved by the regulatory agencies on August 28, 1992. A Statement of Work (SOW) is presently being developed to implement the work plan.

OU 11 - West Spray Field -- Verbal approval of the minor revisions to the OU 11 Work Plan were given by the CDH lead. The revisions were sent to the work plan subcontractor for incorporation into the work plan.

OU 12 - 400/800 Area -- The OU 12 Draft RFI/RI Work Plan has been reviewed by CDH and EPA. Comments have been received by RFO from both agencies. A meeting was held August 27, 1992 among RFO, EG&G and the regulatory agencies to discuss and clarify these comments. The meeting was very productive, and most issues relating to agency comments were resolved and will be included in the Final RFI/RI Work Plan.

One development during the meeting concerned RFO's recommendation to the regulatory agencies that the surface water and sediment sampling tasks planned within OU 12 be removed from the Final Work Plan and included in a proposed Field Sampling Plan (FSP) for the Industrial Area OUs 8, 12, 13, and 14. This FSP would outline the sampling strategies and methodologies for surface water and sediments within the industrial complex. RFO suggested that such a plan would eliminate redundant sampling within separate OU work plans, and provide for consistent sampling methods and better data quality for each of the affected OUs. Although the Industrial FSP will initially cover only surface water and sediment sampling, RFO wants to include groundwater sampling as part of the plan. This FSP will be issued as a Technical Memoranda to the OU 12 Work Plan, and will not be included as part of the final submittal of the Final OU 12 RFI/RI Work Plan.

EPA and CDH have not officially approved the Industrial FSP, but have agreed that such an approach is technically correct. A meeting has been scheduled for the week ending September 11, 1992 with the regulatory agencies to further discuss the need and possible ramifications of the proposed Industrial Area FSP as it relates to IAG milestones.

OU 13 - 100 Area - Work continues on resolving OU 13 Work Plan comments. The Final Phase I RFI/RI Work Plan for OU 13 is due to the regulatory agencies on October 12, 1992, per the IAG.

OU 14 - Radioactive Sites -- The Draft Phase I RFI/RI Work Plan for OU 14 is being reviewed by the regulatory agencies. Work plan comments were expected from EPA and CDH on August 20. When comments are received, they will be incorporated into the final work plan. The final plan will be submitted to the regulatory agencies by October 19, 1992, the IAG milestone date, assuming no further delay in the receipt of comments from the regulatory agencies..

OU 15 - Inside Building Closures -- Comments on the Draft Phase I RFI/RI Work Plan from EPA and CDH were received on August 28, 1992 and are being addressed for incorporation into the Final Phase I RFI/RI Work Plan which is due to the regulatory agencies on October 26, 1992..

OU 16 - Low-Priority Sites -- The Final No Further Action Justification Document was submitted to the regulatory agencies on July 30, 1992. The agencies rejected the document and required changes. A tentative meeting with the regulators is scheduled for September 15, 1992, to discuss their requested changes.

Treatability Studies

Treatability Study on Ion Exchange and Absorption -- The subcontract for the Sitewide Treatability Study on Ion Exchange Work Plan is in place, and work on the document has been started by the subcontractor. Due to budgetary constraints, only the absorption treatability study will be initiated in fiscal year 1993.

Soil Washing Demonstration -- The single use instruction for sampling for this project has been approved and issued as a controlled document. Sampling is anticipated to take place following Labor Day, and the test work will be scheduled at Nuclear Remediation Technology for late September.

Magnetic Separation -- The subcontract for this project is in the final stages of approval. Once RFO approves the project, sampling can be arranged, and the samples will be shipped to the Los Alamos National Laboratory (LANL) for the test work.

USGS Colloidal Transport and Treatment Study -- The first priority samples from the USGS field study were submitted for analyses. The rest of the samples will be submitted over the next few weeks.

Other Activities

PA Decontamination Facility -- Construction activities on the PA Decontamination Facility is proceeding rapidly. The berm area for the tank area is being built up. The fill is ready for liner placement. Subcontracts are being negotiated for the liner installation.

Mixed Waste Landfill Integrated Demonstration -- Sandia National Labs (SNL) and the Naval Research Labs would like to work with RFP on a demonstration of the towed magnetometer array. This project is part of the Mixed Waste Landfill Integrated Demonstration (MWLFID) sponsored by SNL and the U.S. Naval Research Laboratories in Washington. This system is based on geophysical technology that has been applied to the mineral and oil exploration commercial

sector, and used by the DOD for locating ordinance (U.S. Naval Explosive Ordinance Disposal Technology Center).

This demonstration would be a non-intrusive survey of the East Trenches area and the Old Landfill Site. Funding is not in place for this project. RFP technical management has given support to this project, although momentum in FY93 may be limited due to funding constraints.

South Interceptor Ditch (SID) Maintenance-- The SID is scheduled to undergo major maintenance during FY93. This maintenance is needed to prevent a reoccurrence of the August 24, 1992, bypass. Major maintenance was scheduled for FY92 but was postponed due to the suspected presence of several species in the SID that were protected by the Threatened and Endangered Species Act regulations. SID maintenance is now undergoing NEPA review.

Section II - Pondcrete Activities

Evaporator Systems-- Systems operation testing on evaporator systems in Building 910 continues. During testing of the system generator, a serious deficiency was discovered. A mechanical problem in the engine of generator #1 resulted in seizure of a cylinder. The equipment vendor is repairing the engine. Problems are not expected to affect the scheduled building startup of January 9, 1993.

Pondcrete Processing Installation-- Installation work on sludge solidification equipment resumed on August 31, 1992. The subcontractor is being required to provide rigorous training documentation. Some subcontractor personnel are repeating inadequately documented training. Training issues are being addressed. The project schedule is being updated to assess the effects of the work interruption that occurred between August 20 - 31. We expect the sludge processing will be delayed approximately 11 days due to Union/safety concerns.

Section III - Surface Water Management

CDH Samples from Walnut Creek-- On August 25, 1992, CDH made a request to sample Walnut Creek at Indiana Street. These samples were requested because of the rainstorm from the previous day and because of noticeable flow in Walnut Creek. Split samples are collected on a quarterly basis from Walnut Creek and Woman Creek when there is a flow, according to the Agreement in Principle. Samples were taken from Walnut Creek, but not from Woman Creek.

Section IV - Transition/Decontamination and Decommissioning

Site-wide EIS ERD staff assisted in the preparation of a Cost Benefit Analysis for preparing the SWEIS as scheduled. Given the Plant changes due to Transition, the SWEIS is even more important for facilitating regulatory and permitting issues.

DOE/RFO/ERD staff attended a one day meeting with DOE staff at the Fernald Environmental Management Project (FEMP) on August 31, 1992, at the FEMP site. Current ER and D&D activities at FEMP were discussed. FEMP has integrated CERCLA requirements into their D&D program by performing D&D as an Interim Remedial Action. In addition, they prioritized actions to be accomplished on a yearly basis based on the amount of risk reduction accomplished by the previous actions.

A meeting was held between DOE/RFO and DOE/RL Safeguards and Security. DOE/RL discussed a program to reduce safeguards and security costs at Hanford. Key points were:

- Use of a "compartmentalization" approach
- Use of industrial security methods for protection of all items other than SNM and classified.

The number of Category I material areas at Hanford were reduced from 6 to 2. Specific suggestions for RFP transition were to allow more open access at the east and west gates and early closure of Building 886.

Section V - Meetings

OU 1 - 881 Hillside HHRA -- Work continues on both the OU 1 Phase III RFI/RI Report and Feasibility Study (FS). Nearly 100 percent of the laboratory data has been received. EPA and CDH input on data handling and uncertainty analysis for the exposures assessment was obtained at a human health risk assessment (HHRA) working group meetings held on August 28, 1992 and September 4, 1992.

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Section VI - Future

- NEPA Documents Scheduled for Delivery to HQ: None
- September-October 1992 IAG Milestones Scheduled for Delivery from RFO to EPA/CDH:

OU	Milestone	Date Due to EPA/CDH
08	Submit Final Phase I RFI/RI Work Plan	Sep. 28, 1992
12	Submit Final Phase I RFI/RI Work Plan	Oct. 5, 1992
13	Submit Final Phase I RFI/RI Work Plan	Oct. 12, 1992
14	Submit Final Phase I RFI/RI Work Plan	Oct. 19, 1992
15	Submit Final Phase I RFI/RI Work Plan	Oct. 26, 1992
01	Submit Draft Phase I RFI/RI Report	Oct. 28, 1992*

*extended from original IAG date of July 30, 1992 with approval from EPA/CDH